PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:		(11) International Publication Number: WO 99/67641
G01N 33/50, 33/543, C12Q 1/68	A3	(43) International Publication Date: 29 December 1999 (29.12.99)
(21) International Application Number: PCT/US (22) International Filing Date: 24 June 1999 (24.06.98) (30) Priority Data: 60/090,473 09/189,543 10 November 1998 (24.06.98) (71) Applicant: ILLUMINA, INC. [US/US]; Suite 200, 939 Centre Drive, San Diego, CA 92121 (US). (72) Inventors: CHEE, Mark, S.; 155 15th Street #24, Del 92014 (US). STUELPNAGEL, John, R.; 38 Briggs Encinitas, CA 92024 (US). CZARNIK, Anthony, V Camino Abrojo, San Diego, CA 92127 (US). (74) Agents: BREZNER, David, J. et al.; Flehr Hohb Albritton & Herbert LLP, Suite 3400, 4 Emi Center, San Francisco, CA 94111–4187 (US).	24.06.9 U08) War, Cos Avenu W.; 110 Doach Te	BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI paten (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE SN, TD, TG). Published With international search report. (88) Date of publication of the international search report: 9 March 2000 (09.03.00

- (54) Title: DECODING OF ARRAY SENSORS WITH MICROSPHERES
- (57) Abstract

The invention relates to compositions and methods for decoding microsphere array sensors.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	ТJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	1E	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of Americ
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Јарал	NE	Niger	VN	Vict Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
СН	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	I.C	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

	INTERNATIONAL SEARC	H KEPOKT	Internatio Applie	CT/US 99/14387
A C. 422				
	33/50, G01N33/543, C12Q1/68			
GUIN	1337 30, GO1N337 313, C12Q1, CC	,		
According	to International Patent Classification (IPC) or to both national class	efication and IPC		
	S SEARCHED			
	documentation searched (classification system followed by classifica	uon symbols)		
GOIN	I, C12Q			·
Documenta	tion searched other than minimum documentation to the extent that	such documents are in-	cluded in the fields se	arched
Elemenia e		. La constant		
Electronic o	fala base consulted during the international search (name of data ba	ise and, where practical	, search terms used).	
	·			
C. DOCUM	MENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where appropriate, of the	relevant passages		Relevant to claim No.
			·	
Х,Р	WO 99/18434 A	T T ECE \		1-5,8- 15
	(TRUSTEES OF TUFTS CO	TTEGE!		13
	claims 1-32.			
. D	WO 09/40726 A			1-18
A,P	WO 98/40726 A (TRUSTEES OF TUFTS CO	LLEGE)		
	17 September 1998,			
	abstract, claims.			
A, P	WO 98/50782 A			1,4
, -	(TRUSTEES OF TUFTS CO	LLEGE)		
	12 November 1998, claims.			
	-	•	İ	
:				
	·			
Furd	her documents are listed in the continuation of box C.	Patent famil	y members are listed	in annex.
* Special ca	legaries of cited documents:	"T" later document p	oublished after the in	ternational filing date
'A' docum	ent defining the general state of the art which is not ered to be of particular relevance	cited to underst	and the principle or	ith the application but heory underlying the
	document but published on or after the international	invention "X" document of page	rticular relevance; the	e daimed invention
'L' docume	ent which may throw doubts on priority claim(s) or	involve an inve		ocument is taken alone
a ta ti o	is cited to establish the publication date of another n or other special reason (as specified)	connot be consi	ricular relevance; the	nventive step when the
on cr		menu, such cor	mbined with one or i	nore other such docu- ous to a person skilled
'P' docume	ent published prior to the international filing date but han the priority date claimed	in the art. "&" document micro!	ber of the same pater	nt family
Date of the	actual-completion of the international search	Date of mailing	of the international	search report
	28 October 1999	2	1 12. 99	
	· · · · · · · · · · · · · · · · · · ·			
Name and r	mailing address of the ISA European Patent Office, P.O. 3818 Patentiaan 2	Authorized offic		
	NL - 2280 HV Rijswijk Td. (+31-70) 340-2040, Tx. 31 651 cpo nl.	SCHNASS e	.h.	

Form PCT/ISA/210 (second sheet) (July 1992)

ANHANG

zum internationalen Recherchen-bericht über die internationale Patentanmeldung Mr.

ANNEX

to the International Search Report to the International Patent Accircatum \$0.

ANNEXE

au rapport de recherche inter-national relatif à la demande de prevet internevional n°

PCT/US 99/14387 SAE 241096

In diesem Arhang sind die Mitglieder der Patentfamilien der in obengenammten internationalen Recherchenbericht cited in the above-mentioned internationalen nur zur Unsernichtung und erfolgen ohne Gewähr.

This Annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The Office is in now way isasie for these particulars which are given merely for the purpose of information.

La presente annexe indique les membres de la famille de brevets relatifs aux documents de brevets cités dans le rapport de recherche inter-national visée ci-dessus. Les reseigne-ments fournis sont donnés à titre indica-tif et n'engagent pas la responsibilité de l'Office.

Im Recherchenbericht angeführtes Patentdokument Patent document cited in search report Document de brevet cité dans le rapport de recherche		Datum der Veröffentlichung Publication date Date de wedication	Patent Paten menb Menbre (d(er) der (familie t family merts) s) de la de prevets	Datum der Veröffentlichung Publication date Date de pocilication			
WO A1	9918434	15-04-1900	AU AI WD CZ	17495745 9918454	77-744-1 99 5 77-744-1 9 -1			
NO AL	9840726	17-09-1998	AU Al	64648/99	29-09-1993			
WO AZ	7850781	12-11-1998	AU AL	72570/98 9850782	77-3 -1999 64-00-1999			